

REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Applicants note that this response is submitted within two months of the mail date of the final rejection.

Claim Amendments

Claim 1 has been amended to clarify that the washing is performed to effect complete dissolution through hydrolysis of the aliphatic polyester resin. The complete dissolution of the aliphatic polyester resin is clear based on the following descriptions in the present specification.

(1) The use of alkaline water in an amount exceeding an equivalent amount for 1 mol of recurring unit of the aliphatic polyester resin as described at page 9, lines 11- 26.

(2) The coloring of the aliphatic polyester resin layer as a means for judgment of incomplete separation (from the principal resin) by the remaining of solid colored resin as described at page 11, line 21 to page 12, line 4.

(3) Experimental Examples 1 - 3 described at pages 12 - 14 contemplated no physical separation between the principal resin and the remaining aliphatic polyester resin, including Experimental Example 2 dealing with a case of incomplete dissolution of the aliphatic polyester resin after the washing step.

Request for Examiner-Initialed Form PTO/SB/08

Attached to the Office Action of April 15, 2010 is a copy of the PTO/SB/08 Form submitted with Applicants' IDS dated March 10, 2010. Although the Examiner signed the bottom of the PTO/SB/08 Form, the Examiner did not initial reference CA. Attached hereto is a duplicate copy of the PTO/SB/08 Form, citing only reference CA. The Examiner is kindly requested to return an Examiner-Initialed copy of the Form with the next correspondence, thus indicating that he has considered the reference cited therein.

Consideration After Final Rejection

Although this amendment is presented after final rejection, the Examiner is respectfully requested to enter the amendment and consider the remarks, as they place the application in condition for allowance.

Patentability Arguments

The patentability of the present invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Rejection Under 35 U.S.C. § 103(a)

Claims 1-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Peters et al. (US 6,090,860) in view of Shiiki et al. (US 6,673,403) and Gordon III et al. (US 5,594,076). This rejection is respectfully traversed.

In response to Applicants' previous argument that Peters relies on physical separation of the base plastic (as represented by PET) from a laminate including a gas-barrier coating, rather than the chemical separation adopted in the present invention, the Examiner refers to column 5, lines 19-30 and column 5, lines 55-57 of Peters as a description *allegedly* showing that Peters adopts chemical separation. Particularly, column 5, lines 55-57 of the reference describes: "...the separating composition loosens, lifts and ultimately separates the coating from the base plastic". (Please see page 5 of the Official Action.)

Although Peters uses a chemical action of the separating composition up to the separation between the coating and the base plastic, in the subsequent description from column 5, line 57 to the end of Peters, no description is made **at all** regarding the removal by dissolution of the separated coating. Rather, only **physical separation** between the coating and the base plastic is described. Thus, it is clear that the basic concept of separation between the coating and the base plastic in Peters is "physical separation" of the coating remaining in a solid state from the base plastic.

Gordon may teach that it is well known for an aliphatic polyester resin to degrade by hydrolysis. However, the teachings of the reference are far from suggesting the **complete**

dissolution through hydrolysis of such an aliphatic polyester resin in lamination with a base plastic, such as an aromatic polyester resin (PET), as a means for recovery of the base plastic.

Furthermore, as mentioned in the last response, the steam or moisturizing treatment described at column 5, line 14 of Peters is merely a means for removing label contaminants and/or residual adhesives. Applicants note that the Examiner has not yet addressed this argument. Peters does not suggest or even recognize the effect of such a moisturizing pre-treatment step for reducing the induction period of the hydrolysis of the aliphatic polyester resin, thereby providing an entirely effective method of recycling the principal resin.

Regarding the moisture content after the storing in a moisturizing environment, the Examiner asserts that “It would have been obvious, however, to modify the process of Peters to adjust the moisture content of the barrier layer resin to 0.1 wt.% because it has been held that optimization of a result effective variable is within routine skill of one in the art (MPEP 2144.05). Moisture content is a result effective variable because the yield of the hydrolysis reaction is dependent on the amount of water contained in the polymer” (Please see the middle of page 3 of the Official Action.)

However, as the process of Peters does not employ the complete dissolution through hydrolysis of an aliphatic polyester resin, such a concept of optimization of a moisture content after the moisturizing treatment for minimizing the subsequent time for complete dissolution through hydrolysis does not arise in the process of Peters.

In fact, Peters teaches drying after such a moisturizing pre-treatment prior to the subsequent step for separation between the coating and the base plastic. (Please see column 14, line 63 - column 15, line 4.) As a result, the moisturizing to a moisture content of at least 0.5 wt. % (as required by Applicants’ claim 1) is not effectively realized as a pre-treatment for reducing the induction period for complete dissolution through hydrolysis of aliphatic polyester resin.

Consequently, an improved method of recycling a principal resin (as represented by PET) from a laminate thereof with an aliphatic polyester resin layer of the present invention, based on removal of the aliphatic polyester resin layer by complete dissolution through hydrolysis thereof and a moisturizing pre-treatment for reducing the induction period of the hydrolysis, is not suggested based on the combination of Peters in view of Shiiki (teaching only such a laminate) and Gordon (teaching only degradation through hydrolysis of an aliphatic polyester resin).

For these reasons, the invention of claims 1-11 is clearly patentable over the cited references. Withdrawal of the rejection is respectfully requested.

Conclusion

Therefore, in view of the foregoing amendment and remarks, it is submitted that the ground of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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